

WHAT IS CLAIMED IS:

1. A method for identifying *Mycobacterium tuberculosis* and non-tuberculosis *Mycobacterium* (MOTT) which comprises the following steps:

- (1) isolating DNA from a sample;
- (2) amplifying a 531bp fragment of the *rpoB* gene by PCR using said DNA isolated in the above step (1) and the primers of SEQ. ID. NOs. 1 and 2;
- (3) performing PCR-reverse blot hybridization by hybridizing the PCR product obtained in the above step (2) with one or more oligomer probes, said oligomer probes selected from the group of oligomer probes consisting of SEQ. ID. NOs. 3 to 20, adhered to a suitable membrane.

2. The method of claim 1, wherein said suitable membrane is a negatively-charged nylon membrane.

3. The method of claim 2, wherein said negatively-charged nylon membrane has surface carboxyl groups.

4. A method for the determination of the susceptibility of *M. tuberculosis* to antituberculosis drugs, by detection of mutations in the *rpoB* gene, which comprises the following steps:

- (1) isolating DNA from a sample;
- (2) amplifying a 531bp fragment of the *rpoB* gene by PCR using said DNA isolated in the above step (1) and the primers of SEQ. ID. NOs. 1 and 2;
- (3) performing PCR-reverse blot hybridization by hybridizing the PCR product obtained in the above step (2) with one or more oligomer probes, said oligomer probes

selected from the group of oligomer probes consisting of SEQ. ID. NOs. 21 to 30, adhered to a suitable membrane.

5. The method of claim 4, wherein said suitable membrane is a negatively-charged nylon membrane.

6. The method of claim 5, wherein said negatively-charged nylon membrane has surface carboxyl groups.

7. The method of claim 4, wherein said antituberculosis drug is rifampin or a rifampin derivative.

8. The recombinant oligonucleotides consisting of the DNA sequences described by SEQ. ID. NOs. 1 and 2.

9. The recombinant primers from the nucleotide sequences according to claim 8, wherein said primers can be used to amplify a 531bp fragment of the *rpoB* gene by PCR.

10. An oligomer probe selected from the group consisting of SEQ. ID. NOs. 3 to 20, wherein said probe can be used to hybridize to a PCR-amplified fragment of the mycobacterial *rpoB* gene in order to separately identify *Mycobacterium tuberculosis* and MOTTs.

11. An oligomer probe selected from the group consisting of SEQ. ID. NOs. 21 to 25, wherein said probe can be used to hybridize to a PCR-amplified fragment of the wild

type *M. tuberculosis rpoB* gene.

12. An oligomer probe selected from the group consisting of SEQ. ID. NOs. 26 to 30, wherein said probe can be used to hybridize to a PCR-amplified fragment of a mutated *M. tuberculosis rpoB* gene.

13. A kit for separately identifying *Mycobacterium tuberculosis* and MOTTs, which comprises the oligonucleotide primers described by SEQ. ID. NOs. 1 and 2 and the oligomer probes selected from the group consisting of SEQ. ID. NOs. 3 to 20.

14. A kit for the determination of the susceptibility of *M. tuberculosis* to antituberculosis drugs by detection of mutations in the *rpoB* gene, which comprises the oligonucleotide primers described by SEQ. ID. NOs. 1 and 2 and the oligomer probes selected from the group consisting of SEQ. ID. NOs. 21 to 30.